

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 2 of 10

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

- B1
1. (Currently Amended) A computer system to present to a user interface data about a hydraulic an artificial structure in or over a hydrological feature comprising:
 - at least one database for receiving and storing data about the structure wherein the stored data includes structural data about the structure;
 - at least one data source for providing data about the structure;
 - a communication network for transmitting data about the structure from the at least one data source to the database or to the user interface and for transmitting from the database to the user interface;
 - the user interface for presenting to the user data about the structure transmitted from the at least one database or the at least one data source.
 2. (Previously Amended) The computer system of claim 1, wherein the data source provides hydrological data, meteorological data, geological data or device data.
 3. (Original) The computer system of claim 2, wherein the interface presents hydrological data, meteorological data, structural data, environmental data, geographical data or device data.
 4. (Original) The computer system of claim 1, wherein the interface receives and displays real-time data from the data source.
 5. (Original) The computer system of claim 1, wherein the data source provides environmental data selected from the group consisting of soil, vegetarian, river, hydrological, coastal, tidal and seismic data.

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 3 of 10

- B
(cont'd)*
6. (Original) The computer system of claim 1, wherein the data source provides meteorological data selected from the group consisting of radar, tide, snow and warning data.
 7. (Previously Amended) The computer system of claim 1, wherein the data source provides structural data selected from the group consisting of structural detail, attributes, plans, inspection reports, maintenance memos and bridge history data.
 8. (Previously Amended) The computer system of claim 1, wherein the interface presents data from at least a first and a second data source.
 9. (Original) The computer system of claim 7, wherein the interface presents data by displaying a graphical representation of data from the first data source onto data from the second data source.
 10. (Previously Amended) The computer system of claim 8, wherein the first data is a map showing a meteorological condition and the second data is a map showing the location of the structure.
 11. (Original) The computer system of claim 1 further comprising a means for prioritizing the data and a means for presenting a warning signal to a user.
 12. (Original) The computer system of claim 11, wherein the means for presenting a warning signal is a telephone call, an e-mail, a page, a fax or an instant message.
 13. (Original) The computer system of claim 1, further comprising a means for setting a threshold on the data such that when the data exceeds the threshold a high warning signal is sent to the user or a central site.

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 4 of 10

14. (Previously Amended) The computer system of claim 1 wherein the user interface comprises:

B1
(Cont'd)

a general map of an area, showing hydraulic structures and hydrological features,
a second map showing detail such as the population density, detouring options for traveling public, emergency facilities, existing evacuation routes, and real-time location of safety personnel responding to the event, and

a comparative chart of a threshold for the area that has caused a warning signal to be sent and a normal or expected data for the area.

15. (Original) The system as defined in claim 13 wherein the user can select the maps and detail to be displayed.

16. (Previously Amended) The computer system of claim 1, further comprising a means for calculating risk probability which can be used to prioritize the deployment of emergency personnel in response to a threshold warning.

17. (Previously Amended) The computer system of claim 16, wherein the means for calculating risk probability uses a weighted risk function to create a ranking of risk probability.

18. (Original) The computer system of claim 1, wherein a user profile determines the data to be presented to the user.

19. (Previously added) The computer system of claim 1, wherein the stored data includes hydrological data, meteorological data, structural data, environmental data, geographical data or device data.

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 5 of 10

20. (Previously added) A system for monitoring ~~a hydraulic~~ an artificial structure in or over a hydrological feature comprising:

a computer in communication with

a data source which provides measurement data representative of at least one measurement of an environmental condition affecting the structure; and

a database which stores a predetermined threshold for the measurement data;

wherein the computer compares the measurement data with the predetermined threshold and communicates an alert when the measurement data exceeds the threshold.

21. (Previously added) The system of claim 20, wherein the data source provides meteorological data, hydrological data, geological data, or device data.

22. (Previously added) The system of claim 20, wherein the measurement data is radar data, tide data, snow data, warning data, water flow data, water stage data, ice data, soil data, vegetation data, seismic data, or scour data.

23. (Previously added) The system of claim 20, wherein the alert is a page, a telephone call, a fax, or an email.

24. (Previously added) The system of claim 20, where in the alert identifies the threshold, the measurement exceeding the threshold, and the location of the structure corresponding to the threshold.

25. (Previously added) A method for monitoring ~~a hydraulic~~ an artificial structure in or over a hydrological feature comprising:

receiving, over a communications network, measurement data representing at least one measurement of an environmental condition affecting the structure;

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 6 of 10

storing a predetermined threshold for the measurement data in a database;
comparing the predetermined threshold with the measurement data; and
communicating an alert, via an interface, when the measurement data exceeds the threshold.

26. (Previously added) The method of claim 25, wherein the received measurement data is meteorological data, hydrological data, geological data, or device data.

27. (Previously added) The method of claim 25, wherein the received measurement data is radar data, tide data, snow data, warning data, water flow data, water stage data, ice data, soil data, vegetation data, seismic data, or scour data.

28. (Previously added) The method of claim 25, wherein the alert is a page, a telephone call, a fax, or an email.

29. (Previously added) The method of claim 25, where in the alert identifies the threshold, the measurement exceeding the threshold, and the location of the structure corresponding to the threshold.

30. (Previously added) A system for prioritizing hydraulic artificial structures in or over hydrological features comprising:

a computer in communication with

data sources which provide measurement data representing at least on
measurement of an environmental condition associated with a plurality of hydraulic structures;
at least one database which stores predetermined thresholds corresponding to the
measurement data, wherein a threshold has an associated priority and structure;

wherein the computer

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 7 of 10

compares measurement data from one or more data sources with corresponding thresholds to identify exceeded thresholds;

identifies structures corresponding to any exceeded thresholds; and

prioritizes the identified structures based on the priorities of the exceeded thresholds.

31. (Previously added) The system of claim 30, wherein the data sources provide meteorological data, hydrological data, geological data, or device data.

32. (Previously added) The system of claim 30, wherein the data is radar data, tide data, snow data, warning data, water flow data, water stage data, ice data, soil data, vegetation data, seismic data, or scour data.

33. (Previously added) The system of claim 30, wherein the computer further provides an alert that identifies the exceeded threshold, the measurement that exceeds the threshold, the priority of the exceeded threshold and the location of the structure corresponding to the exceeded threshold.

34. (Previously added) The system of claim 33, where in the alert is a page, a telephone call, a fax, or an email.

35. (Previously added) A method for prioritizing hydraulic artificial structures in or over hydrological features comprising:

receiving, over a communications network, measurement data representing at least one measurement of an environmental condition associated with a plurality of hydraulic structures;

storing predetermined thresholds corresponding to the measurement data in a database wherein a threshold has an associated priority and structure;

Serial No. 09/844,968
Atty Docket No.: USB-001.02
Page 8 of 10

comparing measurement data from one or more data sources with corresponding thresholds to identify exceeded thresholds;
identifying structures corresponding to any exceeded thresholds; and
prioritizing the identified structures based on the priority of the exceeded thresholds.

- B1
(cont'd)*
36. (Previously added) The method of claim 35, wherein the received measurement data is meteorological data, hydrological data, geological data, or device data.
37. (Previously added) The method of claim 35, wherein the received measurement data is radar data, tide data, snow data, warning data, water flow data, water stage data, ice data, soil data, vegetation data, seismic data, or scour data.
38. (Previously added) The method of claim 35, further comprising:
providing an alert that identifies the exceeded threshold, the measurement that exceeds the threshold, the priority of the exceeded threshold and the location of the structure corresponding to the exceeded threshold.
39. (Previously added) The method of claim 38, where in the alert is a page, a telephone call, a fax, or an email.
-